

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In re Application of)	
)	
Living Way Ministries, Inc.)	
)	
for a Construction Permit for)	File No. BPFT-19981001TA
a New Noncommercial Educational FM)	
Translator Station on)	
)	
Channel 220 at Sun Valley, California)	

MEMORANDUM OPINION AND ORDER

Adopted: September 3, 2002

Released: September 9, 2002

By the Commission:

1. Living Way Ministries, Inc. (“LWM”) seeks Commission review of a staff decision affirming the dismissal of LWM’s application to build a new noncommercial educational (“NCE”) FM translator station on Channel 220 at Sun Valley, California.¹ The staff’s action was based on a finding that the proposed translator would cause prohibited interference to a full service FM station in a populated area.² LWM argues that the staff erroneously rejected evidence, including census data, that showed the affected area is unpopulated, and thus the application is grantable, under an exception to our translator interference rules.³ Alternatively, LWM argues that its application is grantable under a new interference standard adopted while its petition for reconsideration was pending.⁴ San Bernardino Community College (“SBCC”), the licensee of NCE FM station KVCR, San Bernardino, California opposes LWM’s requests.

For the reasons discussed below, we find that the staff correctly rejected the applicant’s primary argument concerning the use of census data, in considering the “no population” exception in Section 74.1204(d) of our rules. However, we apply the new interference standard and find that the application may be granted under this exception. Accordingly, we grant review, reinstate the application, and direct the staff to grant LWM’s application for a construction permit for a new FM translator station in Sun Valley, California. We also take this opportunity to clarify the use of census data, topographic maps, and other evidence in applying this rule section.

I. Background:

¹ See *Letter to Jeffrey Southmayd, Esq.*, re FM Translator, Sun Valley, CA, Ref. No. 1800B3-BHW (Audio Services Division, Mass Media Bureau, Nov. 8, 2000).

² 47 C.F.R. § 74.1204(a).

³ 47 C.F.R. § 74.1204(d).

⁴ *1998 Biennial Regulatory Review – Streamlining of Radio Technical Rules in Parts 73 and 74 of the Commission’s Rules, Second Report and Order*, MM Docket No. 98-93, 15 FCC Rcd 21,649, 21669, 21685-86 (2000) (“*Technical Streamlining Order*”); 65 FR 79773, 79780 (Dec. 20, 2000) (revising 47 C.F.R. § 74.1204(a)).

2. Under the Commission's rules, FM translators operate on a secondary basis. They may not cause either predicted or actual interference to the direct reception of any full service FM radio broadcast station.⁵ It is undisputed that the interfering contour of LWM's proposed translator facility overlaps the protected service contour of second adjacent NCE station KUSC(FM), Los Angeles, California under the rules in effect at the time its application was filed. Thus, the question before us for consideration is limited to whether LWM's proposed translator meets any exception to the interference rules.

3. Section 74.1204(d) of our rules allows for the grant of an FM translator application, notwithstanding predicted interference, if the interference occurs "entirely over water," or "if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable."⁶ LWM argued to the staff that it satisfied the "lack of population" exception. Specifically, LWM submitted a map based on U.S. Census Bureau ("Census Bureau") data showing that within the area of predicted interference there were no internal points⁷ of census blocks.⁸ LWM claimed that such evidence demonstrated "lack of population" under Section 74.1204(d). The staff rejected LWM's showing as insufficient. Moreover, the staff found that the area of predicted interference was industrialized, indicating the potential for interference to listeners who may be present in the area. On reconsideration, LWM submitted photographs, one of which clearly showed smokestacks associated with industrial buildings in the area. The staff considered these photographs as evidence of potential radio listeners within the area of predicted interference.

⁵ 47 C.F.R. §§ 74.1203, 74.1204.

⁶ 47 C.F.R. § 74.1204(d).

⁷ Although LWM used the term "centroid," we refer to "internal point," a term that is defined and used by the Census Bureau as a set of geographic coordinates (latitude and longitude) located within a statistical geographic entity defined by the Census Bureau. A single internal point is identified for each census block, the smallest statistical geographic entity. Generally, an internal point represents the approximate geographic center of a statistical geographic entity. If, however, the shape of the block causes this point to be located outside its boundary or in a body of water, the internal point is relocated to land area within the block. See *Appendix A. Census 2000 Geographic Terms and Concepts*, <http://www.census.gov/geo/www/tiger/glossry2.pdf> at A-10, A-15 (accessed May 14, 2002); *Geographic Areas Reference Manual, Chapter 2 Geographic Overview*, <http://www.census.gov/geo/www/garm.html> (accessed May 14, 2002).

⁸ A "census block" is defined by the Census Bureau as the smallest statistical geographic entity for which it collects and tabulates decennial census information. Census blocks are areas bounded on all sides by visible features, such as streets, roads, streams and railroad tracks, and by invisible boundaries, such as city, town, township, and county limits, and property lines. Factors that influence the overall configuration of census blocks include topography, the size and spacing of water features, the land survey system and the extent, age, type and density of urban and rural development. Generally, census blocks are small in area, for example, a block bounded by city streets. However, census blocks in sparsely settled areas may contain many square miles of territory. For example, for the 1990 Census, the minimum size of a census block was 30,000 square feet (0.69 acre) for polygons bounded entirely by roads, or 40,000 square feet (0.92 acres) for other polygons. There was no maximum size for a census block. See *Geographic Areas Reference Manual, Chapter 2 Geographic Overview* <http://www.census.gov/geo/www/garm.html>, at 2-1 – 2-4 (accessed May 14, 2002); *Geographic Areas Reference Manual, Chapter 11 Census Blocks and Block Groups*, <http://www.census.gov/geo/www/garm.html>, at 11-1, 11-10 (accessed May 14, 2002); *Appendix A. Census 2000 Geographic Terms and Concepts*, <http://www.census.gov/geo/www/tiger/glossry2.pdf> at A-10 (accessed May 14, 2002).

4. On review, LWM defends the evidence it submitted. It also claims that its application is grantable under a newly adopted second-adjacent channel interference standard. With respect to the prior evidence, LWM argues that the staff erred in finding that the documented photograph of smokestacks established that there are potential radio listeners within the interference area. LWM asserts that the photograph, “show[s] only an apparently abandoned commercial building with a smokestack in the overlap area,” and thus confirms the lack of population shown in the census data.⁹ Moreover, LWM asserts that the staff erroneously rejected the submitted census data. According to LWM, the data demonstrated “conclusively that the predicted interference area was completely devoid of any population whatsoever based on the standard U.S. Census block centroid [internal point] analysis that the Commission has always accepted for such purposes.”¹⁰ In opposition, SBCC argues that LWM’s photographs substantiate “that with the introduction of the proposed Sun Valley translator new interference will be created within the KUSC protected area.”¹¹

II. Discussion:

A. Use of New Interference Standard:

5. The Commission adopted a relaxed second-adjacent channel interference standard while LWM’s petition for reconsideration was pending.¹² Specifically, the Commission revised 47 C.F.R. § 74.1204(a) to permit the acceptance of FM translator applications where, *inter alia*, the 100 dBu contour of the FM translator does not overlap the 60 dBu contour of a second adjacent channel station. LWM may demonstrate compliance using the new second-adjacent channel interference protection standard.¹³ Pursuant to Section 74.1204(a), an applicant is required to use the contour overlap method to predict interference. However, when demonstrating that “no actual interference will occur due to . . . other factors,” pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method.¹⁴ In the case of second adjacent stations, interference is predicted to occur where the translator’s undesired signal exceeds the protected station’s desired signal by more than 40 dB. In this case, the strength of the (desired) KUSC signal is 82 dBu in the immediate vicinity of the (undesired) translator station transmitter site.¹⁵ Under the signal ration methodology, interference is predicted to occur wherever the strength of the translator signal exceeds 122 dBu (82 + 40). Thus, LWM may show “no actual interference” by demonstrating a “lack of population” within the proposed translator station’s 122 dBu contour.

⁹ Application for Review at 5.

¹⁰ *Id.* at 2.

¹¹ Opposition at 2.

¹² *Technical Streamlining Order*, 15 FCC Rcd at 21669, 21,685-86.

¹³ *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970), *cert. denied* 403 US 923 (1971) (The Commission is not bound to apply rules that it has determined are no longer in the public interest.)

¹⁴ See, e.g., *Letter to Christine J. Newcomb, Esq.*, re New FM Translator, Clive, IA, Ref. No. 1800B3-BHW (Audio Services Division, Mass Media Bureau, Apr. 26, 2001); *Letter to John F. Garziglia, Esq.*, re New FM Manahawkin, NJ, Ref. No. 1800B3-JDB (Audio Services Division, Mass Media Bureau Sept. 26, 1996).

¹⁵ See File No. BLED-20000404ABH (licensed facilities of KUSC(FM)).

6. The translator station's 122 dBu contour extends approximately 20 meters from the base of the tower. LWM has demonstrated that there is a "lack of population" within this small area, by submitting a 7.5 minute series U.S. Geological Survey topographic quadrangle map ("USGS Topographic Map") that fails to depict any structure or major road within twenty meters of the tower. Such maps have been recognized as acceptable to demonstrate lack of population.¹⁶ Thus, LWM has demonstrated that "no actual interference will occur due to . . . lack of population or . . . other factors," in compliance with Section 74.1204(d). Accordingly, we reinstate the application and direct the staff to resume processing the LWM proposal.

B. Guidance for Future Applicants to Demonstrate Lack of Population:

7. Although it is unnecessary to reach LWM's argument regarding the use of census data, we provide the following guidance to applicants on the use of census data and other evidence in demonstrating compliance with the "lack of population" exception. In *State of Oregon*,¹⁷ the Commission stated that the exception for a "lack of population" under Section 74.1204(d) is applicable only if there is "no population, not merely low or negligible population."¹⁸ The Commission stated further that, "the overlap prohibitions of 74.1204 are designed to protect potential radio listeners from interference."¹⁹ In denying reconsideration, the Commission reiterated that, "the provisions of 74.1204(a) . . . are necessary to protect full-service FM stations and their listeners from interference from secondary services, such as FM translators."²⁰

8. With respect to burden of proof, the Commission emphasized that an applicant bears the burden of demonstrating that an area of predicted interference is unpopulated,²¹ and specifically rejected the argument that it was impossible to prove "no population."²² Although *State of Oregon* did not specify a specific population methodology, it cited with approval staff level analyses based on an applicant's submission of USGS Topographic Maps, showing no structures located within the area of predicted interference.²³

9. The Section 74.1204(d) exception is designed to be narrow in scope. ("[W]e expect that the provision [for lack of population and terrain exceptions] will be used very rarely . . .")²⁴ In this case, the

¹⁶ See paragraph 8, *infra*.

¹⁷ *The State of Oregon, Acting By and Through the State Board of Higher Education for the Benefit of Southern Oregon State College*, 15 FCC Rcd 11842 (2000) ("*State of Oregon*") *recon. denied* 16 FCC Rcd 4344 (2001) ("*Oregon Recon*").

¹⁸ *State of Oregon*, 15 FCC Rcd at 11844 (emphasis in original).

¹⁹ *Id.*

²⁰ *Oregon Recon*, 16 FCC Rcd at 4345. See generally *Amendment of Part 74 of the FM Commission's Rules Concerning Translator Stations*, MM Docket No. 88-140, 5 FCC Rcd 7212 (1990) ("*Translator R&O*") (adding new rule Section 74.1204), *modified* 6 FCC Rcd 2334 (1991), *recon. denied* 8 FCC Rcd 5093 (1993).

²¹ *State of Oregon*, 15 FCC Rcd at 11845.

²² *Oregon Recon*, 16 FCC Rcd at 4345.

²³ *Id.*, citing *Letter to Calvary Chapel of Twin Falls, Inc.*, re New FM, Wenatchee, WA, Ref. No. 1800B3-TDN (Audio Services Division, Mass Media Bureau, Oct. 29, 1998); *Letter to Calvary Chapel of Twin Falls, Inc.*, re New FM, Victorville, CA, Ref. No. 1800B3-TDN (Audio Services Division, Mass Media Bureau, Dec. 31, 1996).

²⁴ *Translator R&O*, 5 FCC Rcd at 7,229.

staff correctly rejected the submitted census data to prove “lack of population.” LWM cites no case law to support its assertion that the Commission has “always” accepted U.S. Census block centroid [internal point] data for purposes of Section 74.1204(d). To the contrary, the Commission has not until now addressed this issue. Further, staff level decisions, have consistently held that such data do not conclusively demonstrate lack of population within an area of predicted interference pursuant to Section 74.1204(d), where a USGS Topographic Map indicates the presence of potential listeners.²⁵

10. Census data of the type submitted here, *i.e.*, a map showing no internal points of census blocks within the area of predicted interference, may not demonstrate in certain circumstances that “no actual interference will occur . . . due to lack of population” pursuant to Section 74.1204(d). The Census Bureau designates internal points for census blocks because it does “not have the latitude and longitude of every housing unit in [its] data base so [it] must use the next best available small geographic area for which [it does] have the tabulated population data, and for which [it has] a latitude and longitude.”²⁶ An internal point generally represents the approximate geographic center of a census block.²⁷ The internal point cannot be correlated with a particular address or the occupied status of a building because the Census Bureau is prohibited from disclosing residential addresses, the number of housing units within a census block, and the vacancy status of housing units.²⁸ Because an internal point does not represent the location of housing units within a census block and bears no direct relation to the location of the population that live within those housing units, absence of an internal point within a particular portion of a census map does not reliably demonstrate a lack of population.

11. Further, as noted above, census data are based on residential housing units, *i.e.*, counting people in the vicinity of where they live. For purposes of analysis of “lack of population” under Section 74.1204(d), however, we consider the locations of places where people work and drive. As we have observed previously, the provisions of Section 74.1204(d) are designed to protect *listeners and potential listeners* of full-service FM stations from interference caused by FM translators.²⁹ We clarify here, that listeners and potential listeners for Section 74.1204(d) purposes are those who live, work, or regularly travel in an area.³⁰ Thus, an area that includes only commercial sites or major highways having no reportable residential population for census purposes, will nevertheless be considered populated under

²⁵ See, e.g., *Letter to Radio Training Network*, re New Translator, Pinellas Park, FL, Ref. No. 1800B3-BHW (Audio Services Division, Mass Media Bureau, Oct. 13, 2000) (rejecting applicant’s reliance on census data to demonstrate lack of population where USGS Topographic Map clearly shows buildings within the proposed interference contour); *Pensacola Christian College, Inc.*, re FM Translator, Abilene, TX, Ref. No. 1800B3-BHW (Audio Services Division, Mass Media Bureau, Sept. 8, 2000) (USGS Topographic Map contradicts applicant’s assertion of “zero persons” based on census data).

²⁶ *Population Estimator*, http://www.census.gov/geo/lv4help/pop_estimate.html (accessed May 14, 2002).

²⁷ See Appendix A. *Census 2000 Geographic Terms and Concepts*, <http://www.census.gov/geo/www/tiger/glossry2.pdf> (accessed May 14, 2002).

²⁸ 13 U.S.C. §§ 8, 9; *Baldrige v. Shapiro*, 455 U.S. 345 (1982).

²⁹ *State of Oregon*, 15 FCC Rcd at 11844; *Oregon Recon*, 16 FCC Rcd at 4345.

³⁰ This standard conforms to broadcast case standing requirements. See, e.g., *Maumee Valley Broadcasting, Inc.*, 12 FCC Rcd 3487, 3488-83, 3489 (1997), as modified by *CHET-5 Broadcasting, L.P.*, 14 FCC Rcd 13041 (1999) (Petitioner has standing to file petition to deny where it demonstrates either that it is a resident of the station’s service area or that the petitioner listens to or views the station regularly, and that such listening or viewing is not the result of transient contacts with the station.)

Section 74.1204(d).³¹ This decision does not alter or diminish the Commission's acceptance of census data to count population in other distinguishable contexts.³²

12. Accordingly, we clarify that USGS Topographic Maps may be used to presumptively establish the presence or absence of population in an area where "actual interference will occur . . ." 47 C.F.R. § 74.1204(d). Under our FM translator rules "interference" is predicted to occur only in that portion of the prohibited overlap area where the undesired-to-desired signal strength ratios fail to meet the threshold levels set forth in Section 74.1204(a). Thus, applicants seeking to demonstrate a "lack of population" often submit both an engineering exhibit that calculates this smaller interference area and other evidence of a lack of population in this more limited area. Where a USGS Topographic Map depicts residences, commercial or industrial areas, or major roads, *e.g.*, interstate highways, within an area of predicted interference, or other potentially occupied sites where one would expect listeners, we will presumptively conclude that the "lack of population" exception does not apply. Conversely, where the USGS Topographic Map does not depict structures, major roads, or other potential listening sites within the area of predicted interference, and where there are no conflicting data (such as, information about recently developed structures), we will presume that the Section 74.1204(d) exception does apply.

13. An applicant bears the burden of rebutting evidence that indicates the presence of population. For example, while USGS Topographic Maps may show the location of structures within an area of predicted interference, it is possible that a map may not reflect the existence of a newly constructed structure or road. In this case, the applicant failed to rebut evidence of population in the area of predicted interference, as defined by the prior rules. A submitted photograph showed that the area of predicted interference contained a commercial building with smokestacks. LWM did not submit an affidavit from a local governmental official attesting to the fact that the building is abandoned or slated for demolition, or file a photograph of the building clearly showing that it was boarded and abandoned.

³¹ See, *e.g.*, *Oregon Public Broadcasting*, (Audio Services Division, Mass Media Bureau, Aug. 15, 2001) (Applicant failed to demonstrate no population under Section 74.1204(d) where an interstate highway is located within area of predicted interference and is occupied by travelers who are potential listeners of a full service station.)

³² Census block data are useful where the Commission is comparing service levels within relatively large areas. For example, in comparative proceedings, noncommercial educational FM applicants use census block data to document whether the number of people that a proposed station would serve exceeds by 10% or more the number of people that would be served by a competing applicant. *Comparative Standards for Noncommercial Educational Applicants*, MM Docket No. 95-31, *Report and Order* 15 FCC Rcd 7386 (2000) ("*NCE R&O*"); *Memorandum Opinion and Order*, 16 FCC Rcd 5074 (2001) ("*NCE M&O*"), *recon. denied Memorandum Opinion and Order*, FCC 02-192 (*released* July 5, 2002). In contrast, census block data do not provide conclusive evidence of a total absence of population in a discrete area because such data do not specify the locations where potential listeners actually live, work or regularly travel.

III. Ordering Clauses:

14. Pursuant to the revised second-adjacent interference standard, as discussed above, IT IS ORDERED that the Application for Review IS GRANTED.

15. IT IS FURTHER ORDERED that, the application of Living Way Ministries, Inc., (File No. BPFT-19981001TA), for a new noncommercial educational FM translator station at Sun Valley, California IS REINSTATED and that the staff SHALL PROCESS the application upon receipt of a valid antenna structure registration.³³

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

³³ See 47 C.F.R. § 17.4(a). FCC antenna structure registration may be accomplished electronically via the Internet at <http://www.fcc.gov/wtb/antenna/>, or by sending a completed FCC Form 854, *Application for Antenna Structure Registration*, to Federal Communications Commission, Information Processing Branch, 1270 Fairfield Rd, Gettysburg, PA 17325-7245. If the antenna structure cannot be registered within 30 days of the release of this Order, the applicant must notify the Audio Division, Office of Broadcast Policy, Media Bureau, in writing, concerning the delay. Failure to respond within this time period will result in the dismissal of the application pursuant to 47 C.F.R. § 73.3568.